REMARKS

Claims 1 and 3-12 are pending. No new matter has been added by way of the present submission. For instance, claim 1 has been amended to include the subject matter of claim 2 and accordingly, claim 2 has been cancelled. Also, claim 3 has been amended to depend from claim 1. Thus, no new matter has been added.

Additionally, no new issues have been raised which would require additional search and/or consideration on the part of the Examiner. For instance, Applicants are simply relying upon the language of claim 2, which has already been searched and considered. In the event that the present submission does not place the application into condition for allowance, entry thereof is respectfully requested as placing the application into better form for appeal.

In view of the following remarks, the Examiner is respectfully requested to withdraw all rejections and allow the currently pending claims.

Issue under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 1-12 under 35 U.S.C. § 112, second paragraph for the reason noted at page 2 of the outstanding Office Action. This rejection is respectfully traversed.

In the present Amendment, the term "quality improver" is cancelled. By way of the present submission, this rejection is moot.

Issue under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-6 under 35 U.S.C. § 103(a) as being obvious over Takahashi et al., U.S. Publication No. 2002/0001659 (hereinafter referred to as Takahashi '659) in view of Krawczyk, USP 6,025,007 (hereinafter referred to as Krawczyk '007). This rejection is respectfully traversed.

The Present Invention and its Advantages

Claim 1 of the present invention is directed to a composition for a deep-fried food comprising: a polysaccharide powder having an average particle size of 20 μm or less, wherein the polysaccharide is selected from the group consisting of guar gum, pectin, xanthane gum, alginic acid and carboxymethyl cellulose, and the polysaccharide powder is obtained by subjecting a polysaccharide to jet pulverization or freeze pulverization.

In the deep-fried food field, a large amount of oil adsorption can occur during frying. Also, due to this oil adsorption, mouth feeling and taste are lowered and health is negatively influenced. Thus, oil absorption in deep-fried foods is necessarily controlled. In other words, low oil adsorption is important in deep-fried foods. For this, the inventors have presented the solution by providing a pulverized polysaccharide powder having an average particle size of 20 μm or less. When using such a powder, oil adsorption in deep-fried foods during cooking is remarkably controlled. This is proven by the attached Rule 132 Declaration, wherein the present polysaccharide powder having an average particle size of 20 μm or less under pulverization reveals unexpectedly superior results, i.e., low oil adsorption. Also, see Table 1 of the present specification.

Distinctions over the Cited References

The present invention is not made obvious over the cited references for at least the following reasons.

First, a combination of the cited references is improper and thus cannot occur.

Takahashi '659 discloses utilization of an alginic ester powder having a particle size of less than 125 μm in order to retard oil absorption during frying.

Krazwczyk '007 relates to a cellulose composition comprising a combination of (1) a finely divided cellulose component having a size of about 0.1 to about 8 micron and (2) a surfactant component comprising one or more surfactants, in powder aggregate form for the use in lipids and in reduced fat foods. See column 4, lines 21-34 of Krazwczyk '007.

In Krazwczyk '007, the surfactant is adsorbed onto the surface of cellulose particles to function as a barrier to prevent formation of hydrogen or cellulosic bonds between the finely divided cellulose particles. Also, the surfactant acts as a dispersant to reconstitute and homogeneously disperse the finely divided cellulose. Accordingly, the surfactant is an essential component in Krazwczyk '007. See column 4, lines 35-45, columns 5, line 21- column 6, line 8 and Examples 1-14 of Krazwczyk '007. Further, the cellulosic composition of Krazwczyk '007 is used in a low fat ice cream formulation (Example 13) or non-fat whipped topping formulation (Example 14).

As seen from the above, Krazwczyk '007 requires surfactants disclosed in column 5, line 60-column 6, line 8, while Takahashi '659 does not.

According to case law, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). (cited in MPEP 2141.02). Where the Examiner's proposed modification would render the prior art version unsatisfactory for its intended purpose, the proposed combination is improper. In re Gordon, 733 F.2d 980, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); see also Ex parte Rosenfeld, 130 USPQ 113 (POBA 1961). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious," In re Ratti, USPQ 349 (CCPA 1959).

With such case law in mind, Applicants respectfully submit that if the above essential components and particle size of oil absorption retarder of Takahashi '659 are altered, for instance, in the manner suggested by the Examiner, such a retarder composition cannot be formed. In other words, the essential components with a certain particle size of Takahashi '659 cannot be altered in such a way that the intended purpose (i.e., oil adsorption retarder) of Takahashi '659 becomes impossible.

Also, the alginic ester powder of Takahashi '659 should be used in deep fried foods while a combined microcrystalline cellulose and surfactant powder of Krazwczyk '007 should used in

a low-fat ice cream or a non-fat whipped topping field. Thus, the two references are not analogous with each other and thus, the cited art cannot be combined with each other.

Therefore, it is impossible to combine these two references in terms of intended purpose and composition.

Second, the present invention reveals unexpectedly superior results as compared to the prior art including Takahashi '659.

Even if the Examiner has hypothetically established a *prima facie* case of obviousness, a point not conceded by Applicants, the presently claimed subject matter achieves unexpectedly superior results compared to the prior art, which may be equated with Takahashi '659. Thus, any hypothetical *prima facie* case of obviousness is moot. To this end, Applicants herein provide a Declaration under 37 C.F.R. § 1.132 proving unexpected results of comparative experimentation between the present invention using the claimed particle size and the prior art using the particle size outside of the present invention.

Please note that evidence of unexpected results is commensurate in scope with the claimed invention wherein the polysaccharide powder has 20 μm or less and the powder is obtained by pulverization. The claimed polysaccharide powder was compared with the closest example of prior art, for instance, Takahashi '659 wherein the polysaccharide powder has more than 20 μm and the powder is not pulverized.

That is, as proven by the Declaration, the present polysaccharide powder was confirmed to have significant effects as compared to the prior art polysaccharide powder without pulverization and having an average particle size outside of the claimed range. Specifically, Powders B-1, B-2 and B-3 obtained by pulverization and having an average particle size of 20 μm or less show unexpectedly excellent improvements in retarding oil adsorption and also provide excellent mouthfeel and taste. In contrast, Powders A-1, A-2, A-3 (without pulverization treatment and having an average particle size of more than 20 μm) as well as Powders C-1, C-2 and C-3 (with classical treatment but without pulverization treatment and having an average particle size of more than 20 μm) show at least 1.5 fold higher oil adsorption rate. Therefore,

such comparative tests prove unexpectedly superior results for the present pulverized polysaccharide powder having an average particle size of 20 μm or less.

Also, although the recitation of "wherein the polysaccharide powder is obtained by subjecting a polysaccharide to jet pulverization or freeze pulverization" is arguably a product-by-process format, patentable weight must be given to such recitation. This is because this limitation is supported by MPEP § 2113, "[T]he structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., In re Garnero, 162 USPQ 221, 223 (CCPA 1979)". Therefore, the claimed limitations defining a composition for the deep-fried food composition are proper.

As discussed above, it can be understood that the claimed composition is effective for reducing the oil adsorption due to pulverization and the claimed particle size. Also, Applicants have shown that superior results exist for such a close comparison. This is sufficient to rebut a hypothetical *prima facie* case of obviousness.

For the reasons set forth above, the present invention is not made obvious over the cited art. Therefore, reconsideration and withdrawal of the 103(a) rejection are respectfully requested.

In view of the above, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig A. McRobbie Reg. No. 42,874 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

CAM/KC/ma

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By _____

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Attachments: Declaration under C.F.R. 1.132